

HEANOR URBAN DISTRICT

INTERIM REPORT

of the

MEDICAL OFFICER OF HEALTH

for the Year 1941.

To The Chairman and Members of the Heanor Urban District Council.

Mr. Chairman and Gentlemen,

The report I have the honour to present to you is somewhat truncated and contains only an outline of the most important matters concerning the health of the district for the year ended December 31st. 1941.

"If to do were as easy as to know what were good to do, chapels had been churches and poor men's cottages princes' palaces. It is a good divine that follows his own instruction: I can easier teach twenty what were good to be done, than be one of the twenty to follow mine own teaching. The brain may devise laws for the blood but a hot temper leaps o'er a cold decree: such a hare is madness the youth, to skip o'er the meshes of good counsel the 'cripple' - Portia to Nerissa. The Merchant of Venice: Act I, Scene 2.

POPULATION AND HOUSES. - At the end of 1941, the number of houses was 6,415 being the same number as in 1940. No houses were erected by the Council or by private enterprise. The average number of people per house was 3.5. The estimated mid-year population of 1941, according to the Registrar-General was 22,640, being an increase of 360 on the previous year. There are many movements in the population on account of the calling-up of the men of military age and of women being conscripted into industry and the Women's Forces, and no figures are available for these transfers out of the district. Similarly, there are no figures available to indicate the exact number of people who have been evacuated into this district from outside except the figures supplied through the chief billeting officer. The number of evacuees remaining in the district at the end of June 1941 was 724; at the end of December it was 506.

A fairly accurate estimate of the present population (June 1942) can be obtained from the chief A.R.P. Organiser whose wardens are engaged in taking a count of all the people in the administrative area at the present time. He has undertaken to supply me with those figures, and, at all times when they are revised as they frequently are, to transmit them to my office. It would be possible also to gain an approximate idea of the population from the number of ration books issued at the times they are changed. The Food Officer states

that he is forbidden to divulge these figures. The Ministry of Food should cease to act in this dog in a manger fashion.

VITAL STATISTICS. - The number of live births was 392 being an increase of 20 over the previous year. The number of still births was 13. Of the live births, 11 were illegitimate.

The Birth rate was 16.8 per 1,000 of the population.

The total number of deaths was 216 (110 male, 106 female), being 49 less than last year - giving a death rate of 9.5 per 1,000 of the population.

The following table shows the relative positions of the birth and death rates for the years 1939 to 1941 inclusive :-

Per 1,000 Population.

<u>YEAR</u>	<u>BIRTH RATE.</u>	<u>DEATH RATE.</u>
1939	16.2	11.2
1940	16.7	11.8
1941	16.8	9.5

These figures reflect a very satisfactory state in the health of the community, but I must point out that there are many still births occurring and the death rate does not denote the morbidity or sickness rate which I know from personal experience in practice is very heavy, especially in the first two quarters of the year.

The Infantile Mortality Rate was 20.4 per 1,000 live births, and shows a considerable reduction on the two previous years. There were no deaths from diarrhoea in children under 2 years of age. There were no deaths from puerperal sepsis or post-abortion sepsis or other maternal causes.

TABLE I.

CAUSES OF DEATH IN INFANTS UNDER 1 YEAR OF AGE.

<u>AGE.</u>	<u>DISEASE.</u>
5 days	Congenital Heart Disease.
3 hours	Atelectasis of Lungs.
1 week	Premature Birth.
20 hours	Premature Birth.
1 week	Pneumonia.
1 month	Spina Bifida.
22 hours	Premature Birth.
3 months	Bronchitis.

TABLE 2.

VARIOUS CAUSES OF DEATH IN 1941.

Typhoid and Paratyphoid.	...	...	...	...	...	0
Cerebro-spinal Fever ...	...	...	...	...	...	2
Scarlet Fever ...	...	...	...	...	...	0
Whooping Cough...	...	...	...	...	...	1
Diphtheria ...	...	...	...	...	...	1
Tuberculosis of Respiratory System ...	...	...	...	...	...	9
Other Forms of Tuberculosis ...	...	...	...	...	...	3
Syphilis..	...	...	...	...	...	1
Influenza.	...	...	...	...	...	4
Measles...	...	...	...	...	...	0
Acute Poliomyelitis and Polioencephalitis ...	...	...	...	...	...	0
Acute Encephalitis ...	...	...	...	...	...	0
Cancer: Oesophagus and Buccal Cavity.	...	...	...	...	...	2
" : Uterus..	...	...	...	...	...	3
" : Stomach and Duodenum..	...	...	...	...	...	3
" : Breast..	...	...	...	...	...	5
" : All other sites	...	...	...	...	...	19
Diabetes..	...	...	...	...	...	2
Intracranial Vascular Lesions..	...	...	...	...	...	24
Heart Disease ...	...	...	...	...	...	46
Other Diseases of Circulatory System..	...	...	...	...	...	7
Bronchitis ...	...	...	...	...	...	11
Pneumonia.	...	...	...	...	...	8
Other Respiratory Disease ...	...	...	...	...	...	5
Ulcer of Stomach and Duodenum..	...	...	...	...	...	6
Diarrhoea under 2 years.	...	...	...	...	...	0
Appendicitis ...	...	...	...	...	...	1
Other Digestive Disease.	...	...	...	...	...	7
Nephritis.	...	...	...	...	...	5
Puerperal Sepsis.	...	...	...	...	...	0
Other Maternal Causes...	...	...	...	...	...	0
Premature Birth..	...	...	...	...	...	3
Congenital Malformations,	...	...	...	...	...	
Birth Injuries or Infantile Diseases..	...	...	...	...	...	5
Suicide...	...	...	...	...	...	1
Road Traffic Accidents..	...	...	...	...	...	3
Other Violent Causes ...	...	...	...	...	...	5
All Other Causes.	...	...	...	...	...	24
TOTAL.....						216

TABLE 3.

HEANOR URBAN DISTRICT :- CASES OF NOTIFIABLE DISEASE AT VARYING AGES DURING 1941.

AGE GROUP

DISEASE	UNDER 1 YEAR.	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 & OVER	TOTAL.
Small Pox.	-	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever.	1	-	2	1	4	16	1	3	3	-	1	-	32
Diphtheria.	-	-	2	1	2	18	18	5	1	2	-	-	49
Typhoid Fever, (including Para- typhoid Fever).	-	1	-	-	-	-	-	-	-	1	1	-	3
Puerperal Pyrexia.	-	-	-	-	-	-	-	-	4	-	-	-	4
Pneumonia.	2	4	4	2	3	16	1	3	5	6	12	9	67
Measles.	16	18	10	30	29	103	19	3	4	-	-	-	232
Whooping Cough.	18	20	17	18	22	59	-	-	-	-	-	-	154
Dysentery.	-	-	1	-	-	1	-	-	-	-	2	1	5
Tuberculosis(Pulm)	-	-	-	-	-	-	-	2	6	-	1	-	9
Tuberculosis(Non Pulm).	-	-	-	1	-	3	3	-	2	1	1	-	11
Erysipelas.	-	-	-	-	-	-	-	-	2	4	7	2	15
Ophthalmia Neonatorum.	3	-	-	-	-	-	-	-	-	-	-	-	3
Cerebro Spinal Fever.	-	-	-	-	-	1	2	1	2	1	-	-	7
TOTAL.	40	43	36	53	60	217	44	17	29	15	25	12	591

HEALTH SERVICES - The Heanor Memorial Hospital serves the needs of the local population in an admirable manner. During 1941, 401 patients were admitted for treatment. There is a panel of 17 blood donors who have been grouped. A stock of blood plasma is stored at the hospital. More voluntary blood donors are necessary.

The record of work done at the hospital is as follows :-

Patients admitted.....	401
Out Patients.....	1259
Out Patients Attendances.....	2416
Major Operations.....	170
Minor Operations.....	181
Died in Hospital.....	12
Ultra Violet Radiation.....	1366
Infra-Red Radiation.....	1718
Ionisation.....	207
X-Ray Examinations.....	538

Cost per day per In Patient..... 9/0³/₄d.

Cost per Individual Out Patient..... 6/0d.

Work of a very high standard of excellence is done by the consultant, nursing and local medical staff attached to this hospital of 30 beds which is self-supporting as it derives the bulk of its income from contributory associations.

The parent hospitals - the Nottingham General Hospital and the Derby Royal Infirmary - are the main centres which deal with urgent and the more serious type of cases. There are two Women's Hospitals - one at Derby and the other at Peel St., Nottingham, which are used frequently. The Children's Hospitals at Nottingham and Derby are available for children living in this district. There are thus ample hospital facilities.

The Maternity Home in Mundy St., Heanor, dealt with 168 cases of which 88 were residents in this district and 80 resided outside the area. There is a great and increasing demand upon the services rendered by this home from all directions, and many cases have to be refused admission.

The outside cases admitted to the Maternity Home for confinement came from, in Derbyshire - Ripley, Alferton, Somercotes, Riddings, Swanwick, Wingfield, Smalley, Horsley Woodhouse, West Hallam, Shipley, Kilburn and Leabrooks; and in Nottinghamshire - Eastwood, Brinsley, Kimberley, Nuthall, Watnall and Aysworth. The Home is well run and Miss Hutt and her staff are to be congratulated on the excellence of their work under trying conditions. Additional accommodation is required to cope with the demands on the beds. No cases of puerperal pyrexia occurred during the year and there were no maternal deaths.

The Nursing Service for home cases is run in a very satisfactory manner; the work of the District Nurses is arduous and unexciting but is nevertheless very important to a class of case which is unsuitable for admission to any hospital.

Complicated Maternity cases requiring extraordinary obstetrical skill are sent to the Nottingham General Hospital or the Women's Hospital, Peel St., Nottingham. Cases of Puerperal Pyrexia requiring hospitalisation are sent to the Derby Royal Infirmary under the arrangement with the Derbyshire County Council.

AMBULANCE FACILITIES.— One ambulance only is owned and operated by the Council. Another Ambulance is required, as it frequently happens that one is required urgently when it is out. The Colliery Companies will not release their own ambulances except in the most stringent circumstances. The Council's ambulance made the following number of journeys during 1941 :-

Jan. 71: Feb. 69: Mar. 59: Apr. 54: May. 63: June. 52: July. 58
Aug. 57: Sep. 81: Oct. 85: Nov. 63: Dec. 44:

Total mileage was 11,515.

Total journeys, 756 - average 15.2 miles.

Some economy could be practised in the use of the ambulance in frequent journeyings to the Nottingham General Hospital, e.g., many of the journeys are made to transport patients to the Massage Department of that Hospital; I know at the present time, of one case which is using the ambulance two or three times a week for this purpose. In view of the need of economy in the use of petrol I suggest that the Council approach the Secretary of the Nottingham General Hospital, requesting that the Medical and Surgical Staff do not direct sitting cases to attend at the Massage Department three times a week, as this necessitates their being taken by ambulance on each occasion. In these circumstances it would be better that the patients be admitted to Hospital.

More frequent use might be made of local facilities in this respect, though I do not pretend that they equal the facilities provided by Nottingham. Similarly, patients in hospitals outside, when due for discharge should not be directed by hospital authorities to demand the use of the ambulance for the purpose of merely taking them home. The public transport services could be used in the majority of cases for this purpose.

I am convinced that a considerable economy in the use of the Council's ambulance could be affected without loss of efficiency, if those in authority at the Nottingham General Hospital, the Derbyshire Royal Infirmary, the Women's Hospitals at Nottingham and Derby, and also the Children's Hospitals at Nottingham and Derby, were approached in regard to this matter.

Further, an economy in the time the ambulance is engaged on any

one particular journey, could, on occasions be exercised, if the ambulance were not kept waiting for considerable periods at some of these institutions, and the local Medical Practitioners should be on their guard against issuing certificates requiring the use of the ambulance where the public transport services can be used instead.

LABORATORY FACILITIES. - The County Council Laboratory at Derby serves the district for the examination of specimens of sputa, suspected diphtheria, dysentery or typhoid and the serum diagnosis of syphilis, milk examination etc. The Ransome Memorial Laboratory of the Nottingham General Hospital provides a pathological and biological service in conjunction with the local hospital.

INFECTIOUS DISEASE HOSPITALS. - The Hospital of the Belper Joint Board provides a satisfactory service for the isolation of cases of infectious disease. Serious cases of cerebro-spinal meningitis are admitted as a rule by the Derby Borough Isolation Hospital through the permission of the M.O.H. of Derby. The Joint Hospital Board undertake to admit cases of diphtheria carriers for tonsillectomy if that is deemed necessary for their cure.

LEGISLATION IN FORCE. - There has been no change during the year.

SANITARY CIRCUMSTANCES. - The sewage works dealing with the sewage from the 12 houses at Stoneyford are unsatisfactory. Their capacity is unequal to dealing with the volume of sewage. The works are antiquated and need remodelling. The tanks require frequent de-sludging to keep them from becoming completely choked with sludge.

Subsidence from colliery working continues to give a great deal of trouble with water mains and sewers. The main sewage works operate in a satisfactory manner. There has been no change in the state of the River Erewash or the Bailey Brook.

CLOSET ACCOMMODATION. - There are 7,046 water closets in the district. 3 privy middens have been converted during the year to water closets. Practically all of the very few remaining privies and pail closets are unconvertable to the water carriage system.

SCAVENGING. - This has been satisfactory, but the lack of labour and of transport combined with the strain thrown upon the department in the collection of salvage has created difficulties. Plant for the baling up of waste paper and tins is required as well as accommodation for the storage of these articles prior to disposal for sale.

WATER SUPPLY. - Up to September 1941 samples were taken for chemical and bacteriological examination once every two months. Following my recommendation, samples are now taken once a month. The analyses show that the water is consistently satisfactory, but as Nitrogen as Nitrite is almost constantly present in the treated water, I am of the opinion that it should be continuously chlorinated. B.coli were absent in 200 cc in all samples taken at random through the year.

INSPECTION OF FOOD. - Meat and other foods are inspected. All slaughtering takes place at the abattoirs at Derby, and meat is distributed from Ripley by vans throughout this district. During part of the year, the methods used in transporting meat were unsatisfactory. In particular, offals were not placed in containers and fresh meat was not always hung but just dumped in a heap on the floor.

8.

These unsatisfactory features have now been removed; but improvisation can be carried too far especially where perishable food is concerned.

The amount of food surrendered or condemned on inspection is as follows :-

Meat. 164 lbs.	Fish. 70 lbs.	Eggs. 1,457.
Bacon. 172 "	Butter. 8½ "	
Tins, various.	162.	
Tins, Milk.	16.	

TABLE 4.

INFECTIOUS DISEASE.

CASES NOTIFIED DURING 1941.

DISEASE.	TOTAL NO. OF CASES NOTIFIED.	NO. OF CASES REMOVED TO HOSPITAL.
Tuberculosis (Pulmonary).	9	}- 15
Tuberculosis (Non-Pulmonary).	11	
Scarlet Fever.	32	12
Diphtheria.	* 49	26
Typhoid Fever.	3	3
Paratyphoid Fever.	0	
Puerperal Pyrexia.	4	
Cerebro Spinal Fever.	7	6
Erysipelas.	15	
Pneumonia.	67	
Measles.	232	
Whooping Cough.	154	
Dysentery.	5	1
Ophthalmia Neonatorum.	3	
TOTAL.	591	63

* Includes 27 carriers isolated from schools.

INFECTIOUS DISEASE. - The usual regulations in regard to quarantine are in force. Schools are disinfected after each term with formaldehyde gas. I am dubious of the utility of this measure; soap and water and fresh air are all that is necessary, and in any case formalin is now difficult to obtain. I am of the opinion that the practice could be discontinued without in any way endangering the health of the scholars for it has no effect whatever in the prevention of infectious disease in schools.

Measles and Whooping Cough are still notifiable diseases. The Scabies Order of 1941 places additional duties on the Medical Officer of Health to inspect premises and persons suspected of, or suffering from scabies and other verminous conditions. A disinfection station for cleansing all infested persons is required under this order.

DIPHTHERIA. - 49 cases were notified, 27 being carriers detected by swabbing in schools. During the latter part of October and the early part of November diphtheria broke out in two schools in this district. Mass swabbing was carried out in a number of schools from which 27 carriers were isolated. Of these 27 carriers, 19 were of the gravis type, 3 intermediate type and 5 were of the mitis type. The total number of children swabbed was 2,304, of whom 1.2% were carriers of a virulent type....

The outbreak commenced in the Heanor Secondary School, one case dying from the disease in hospital. Following this the disease appeared in a girls' school at Langley Mill. All the carriers were isolated from school and immunisation with T.A.F., B.W & Co., commenced. The immunisation was pushed at extreme speed coincidently with the detection of carriers. The means employed quickly stamped out the epidemic before it could get going really well.

TABLE 4 (a)

DIPHTHERIA IMMUNISATION, NOTIFICATIONS, AND DEATHS FOR THE YEARS
1938 to 1941 INCLUSIVE.

<u>Year.</u>	<u>Pre-School Age</u> <u>1 to 5 years.</u>				<u>School Age</u> <u>5 to 15 years.</u>			
IMMUNISATION.								
1938	...	...	...	0	...	...	...	102
1939	...	...	...	138	...	...	...	602
1940	...	...	...	74	...	...	...	295
1941	...	...	...	317	...	...	...	1,456
TOTAL.....				529				2,455

NOTIFICATIONS.				<u>No. Notified.</u>				<u>Deaths.</u>
1938	...	...	...	134	...	...	...	8
1939	...	...	...	40	...	...	...	5
1940	...	...	...	9	...	...	...	0
1941	...	...	...	49*	...	...	...	1
TOTAL.....				<u>232</u>				<u>14</u>

* Includes 27 carriers isolated from schools by swabbing.

During 1941 the total number of children immunised was as follows :-

Pre-School (under 5 years)...	...	...	317
School (5 - 15 years)...	...	...	1456
Others	...	...	22

TOTAL..... 1795

1211 children have been immunised in previous years. This number together with the above total represents about 66% of the total child population of the district which has thus been immunised against diphtheria. During the three months ended December 31st., 229 children under the age of 5 years, and 981 of the age of 5 years and over, but under 15 years, were immunised, a total of 1,210. Every encouragement is given to continue the work of immunising as large a percentage of the child population as possible, especially those under 5 years of age on whom the main attack will be made in the future with a follow up on their entry into school. During the coming year it is hoped to pick up any child who has been missed - in particular those attending the Infants' Schools. By continued application and pressure it is hoped to abolish the recurrent outbreaks of diphtheria which have plagued various parts of the district for a number of years. Since 1938, no death has occurred in any child previously immunised with T.A.F., B.W & Co.

SCARLET FEVER. - 32 cases were notified. The disease was of a very mild type. Some of the 15 cases of erysipelas were severe but treatment with Sulphapyridine or sulphonamide has deprived that disease of most of its terrors.

TYPHOID FEVER. - The 3 cases notified were all traced to a case which occurred in a married woman living outside this area who died from typhoid. 2 of the cases were severe and were treated in hospital. All made good recoveries. All contacts were inoculated - some 50 in number ; no other cases accrued.

WHOOPIING COUGH AND MEASLES. - 154 cases of Whooping Cough and 232 cases of Measles were notified. In neither instance does notification affect in the slightest degree the control of the spread of the disease. No school closure was required during the year on account of measles; it is not desirable that it should be done, as it is likewise of no use whatever. On the contrary, there is a good deal to be said for instituting measles parties in the same way as small pox parties used to be held in the 18th. century - to get it over and done with. I wish one could say the same with that wretched peripatotic disease, Influenza. Measles was much less prevalent than in 1940.

PUERPERAL PYREXIA. - 4 cases were notified. All recovered. Puerperal pyrexia and Ophthalmia Neonatorum are to-day rendered comparatively innocuous by sulphapyridine. In particular, the effects of this drug in cases of Ophthalmia in the new born is little short of miraculous.

CEREBRO-SPINAL FEVER. - 7 cases notified; 2 of which died, being a case mortality of 28.5%.

TUBERCULOSIS.

Details of new cases notified and deaths from tuberculosis during 1941 are given in table 5.

The notifications of new cases of tuberculosis in 1939, 1940 and 1941 were as follows :-

1939	Pulmonary	14		
	Non-Pulmonary	15	-	Total 29
1940	Pulmonary	17		
	Non-Pulmonary	8	-	Total 25
1941	Pulmonary	9		
	Non-Pulmonary	11	-	Total 20

Since the commencement of the war there has been a consistent reduction in the notification of new cases. As regards deaths, these are as follows

1939	Pulmonary	12		
	Non-Pulmonary	2	-	Total 14
1940	Pulmonary	7		
	Non-Pulmonary	1	-	Total 8

(ctd. overleaf).

1941 Pulmonary 9
 Non-Pulmonary 3 - Total 12

Notification of tuberculosis has been satisfactory. No action under the regulations has been necessary with regard to tuberculous employees in the milk trade.

TABLE 5.

TUBERCULOSIS.

AGE PERIODS.	NEW CASES NOTIFIED.				DEATHS			
	PULMONARY		NON-PULMONARY		PULMONARY		NON-PULMONARY	
	M	F	M	F	M	F	M	F
Under 1	-	-	-	-	-	-	-	-
1-5	-	-	1	-	1	-	1	-
5-15	-	-	3	3	-	-	-	1
15-25	1	3	-	1	-	1	-	-
25-35	2	2	-	1	2	-	-	-
35-45	-	-	-	1	-	1	-	-
45-55	1	-	1	-	-	2	1	-
55-65	-	-	-	-	-	-	-	-
Over 65	-	-	-	-	1	1	-	-
TOTAL	4	5	5	6	4	5	2	1

SCABIES.

Cases (Birmingham Evacuees) admitted to the Hostel, Dunstead Road, Langley Mill:-

Quarter ended 31. 3.41. 8
 Quarter ended 30. 6.41. 14
 Quarter ended 31. 9.41. 9
 Quarter ended 31.12.41. 7

TOTAL..... 38

In September I reported that Scabies was still prevalent in the town amongst local inhabitants, and stressed the need for a Disinfecting Station to deal with cases of this kind. I recommended that,

if possible, a portable Thresh Disinfector should be procured. In the absence of this an improvised steamer could be erected together with a dry heat chamber, similar to the kind used in Russia during the last war. The County Health Visitor, Miss Webb, informs me that Scabies does not appear to be so common among the school children as it was, an impression with which I am inclined to agree, but it is by no means absent. It is liable to vary considerably in its incidence. Recurrent infections are sometimes troublesome, indicating that some member of the household has not been treated, or has been missed.

Leaflets have been issued dealing with treatment of the case, and the bedding and clothing has been disinfected with formaldehyde; this method of disinfecting is not satisfactory for whilst the gas will kill the insects it will not dispose of any eggs which may be on the clothing. In spite of many opinions which have been expressed infected blankets and under-clothing are capable of transmitting the disease.

The following leaflet has been issued to all households infected with Scabies :-

TREATMENT OF SCABIES OR ITCH.

This contagious skin disease is caused by a minute insect, the *Acarus scabiei*. The female of the species burrows in the skin, laying her eggs as she proceeds. The main symptom is itching which comes on especially at night, but in the uncleanly, the burrows become infected, so that pustules are produced. Impetigo often supervenes in neglected cases. The site of infection may be anywhere on the body, but most commonly commences on the hands between the fingers. It spreads rapidly. Frequent bathing and changes of under-clothing diminish the rate of spread; hence those (e.g. soldiers) who are unable to have frequent baths as well as underclothes changed are more liable to infection than others. Scabies also occurs in domestic animals such as dogs, cats and horses causing in them so-called mange.

TREATMENT. - The first thing to do in any case is :-

- (1) Bathing and scrubbing. The case should be well scrubbed down with soap and hot water. The scrubbing must be thorough in order to open up the burrows, dig out the insects, and remove the eggs. Particular attention should be paid to the hands. The bathing and scrubbing should be repeated daily for a week. Before the scrub down, it is well to let the case soak in the bath for 15-20 minutes.
- (2) After the above has been done, run off the water and rinse down with clean warm water, and dry. The towel should NOT be used by others, but kept for the case alone.
- (3) After drying, one of the following lotions should be rubbed into the skin of the body (excluding the face) with a stiff paint brush and allowed to dry on before dressing.

(a) Powdered Derris Root Oz. 1V.

Water 1 gallon.

To be labelled The Lotion: External Use Only.

For use : To each $\frac{1}{2}$ pint of lotion add 1 teaspoonful of soap flakes, apply with a stiff brush and allow to dry. Repeat daily for 3 days.

(b) Liq. Calcis Sulphuratae B.P.C. Fl. Oz X.

To be labelled The Lotion: External Use Only.

This is a lime-sulphur wash. Apply with a brush as before for 3-4 days in succession. Do not apply to face. This lotion tinges the skin yellow for a short while, but is no disadvantage.

(c) Benzyl Benzoate Application.

Benzyl Benzoate 25G.

Lanette Wax S.X. 2G

Water to 100 mil.

All lotions are effective as agents for treatment of scabies. Do not buy proprietary preparations of Derris root. The agricultural brand of Derris-root is both cheap and effective.

(4) Flowers of sulphur may be sprinkled on the mattress, the bed ticking, sheets and blankets. A small bag of flowers of sulphur may be worn round the neck or waist for a period by the patient, after treatment.

(5) The blankets, sheets and pillow slips should be soaked in strong Izal water (cold) for 24 hours. Sheets should then be boiled. All under-clothing should be soaked in strong Izal water, before being laundered. Clothing should also be ironed.

(6) The Public Health Department at the Council Offices should be notified in writing of any case of scabies, giving the name and address of each case. Following this, a visit will be paid to the house and all bedding and clothing will be disinfected. No clothes should be sent to any public laundry until this has been done.

TABLE 6.

BIRTH-RATES, CIVILIAN DEATH-RATES, ANALYSIS OF MORTALITY,
MATERNAL MORTALITY AND CASE-RATES FOR CERTAIN INFECTIOUS
DISEASES IN THE YEAR 1941.

	HEANOR U.D.	England and Wales.	126 C Bs. and Great Towns in- cluding London.	148 Smaller Towns resident Population of 25,000-50,000 at 1931 Census.
--	----------------	--------------------------	---	--

Rates per 1,000 Civilian Population.

Live Births.	16.8	14.2	14.7	16.4
Still Births.	0.57	0.51	0.58	0.60
Deaths :-				
All causes	9.5	12.9	14.9	13.0
Typhoid and)				
Paratyphoid)	-	0.00	0.00	0.00
Scarlet Fever.	-	-	-	0.01
Whooping Cough	0.04	0.06	0.07	0.06
Influenza.	0.19	0.19	0.17	0.20
Diphtheria.	0.04	0.07	0.08	0.06
Small Pox.	-	-	-	-
Measles.	-	0.03	0.03	0.03

Rates per 1,000 Live Births.

Deaths under 1 year of age.	20.4	59	71	56
Deaths from Diarrhoea and Enteritis under 2 years of Age.	-	5.1	7.5	4.6

Rates per 1,000 Civilian Population.

Notifications :-

Typhoid Fever.	0.13	0.03	0.02	0.04
Paratyphoid Fever.	-	0.12	0.09	0.05
Cerebro Spinal Fever.	0.30	0.25	0.31	0.20
Scarlet Fever.	1.40	1.47	1.49	1.51
Whooping Cough.	6.80	4.39	4.37	4.50
Diphtheria.	2.16	1.25	1.53	1.19
Erysipelas.	0.66	0.30	0.36	0.27
Small pox	-	-	-	-
Measles.	10.24	10.33	8.27	10.47
Pneumonia.	2.95	1.25	1.53	1.04

(Ctd. overleaf).

Rates per 1,000 Total Births (Live and Still)

Puerperal Infection	0.48	Not Available.
Others	1.75	" "
Total	2.23	" "

Puerperal Fever.	}	9.87	11.91	15.64	9.43
Puerperal Pyrexia.					

- indicates no deaths.

25 27 28 29

It is not clear whether the above results are due to the fact that the β -phase is more stable than the α -phase in the $\text{Ti}-\text{TiO}_2$ system, or to the fact that the β -phase is more stable than the α -phase in the $\text{Ti}-\text{TiO}_2$ system, or to the fact that the β -phase is more stable than the α -phase in the $\text{Ti}-\text{TiO}_2$ system.

1. The first step in the process of creating a new product is to identify a market need. This involves conducting market research to determine what consumers want and what problems they are trying to solve. Once a need is identified, the next step is to develop a concept for a product that addresses that need. This often involves brainstorming and sketching out ideas. The third step is to create a prototype, which is a preliminary model of the product. This allows the designer to test the product's functionality and make any necessary adjustments. Finally, the product is manufactured and distributed to the market. Throughout this process, it is important to keep the target audience in mind and to iterate on the design as needed.

[Faint, illegible handwritten notes]

[illegible]

TABLE 7.

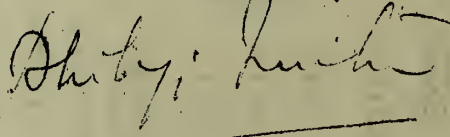
CHEMICAL ANALYSES OF THE HEANOR WATER SUPPLY (ILKESTON & HEANOR WATER BOARD)
PARTS PER 100,000.

	<u>Jan.</u>	<u>Mar.</u>	<u>May.</u>	<u>July.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
Total Solids @ 180° C	19.00	18.00	17.00	19.00	17.00	17.00	18.00	16.00
Suspended Matter.	Nil	Nil	Nil	Nil	Nil	Nil	Trace	Nil
Chlorides as Chlorine.	2.13	2.13	2.13	2.13	2.13	2.13	2.13	1.59
Oxidised N. as Nitrate.	0.24	0.24	0.12	0.12	Nil	0.16	Nil	Nil
Oxidised N. as Nitrite.	Medium reaction	Medium reaction	Weak reaction	Medium reaction	Medium strong reaction	Absent	Medium reaction	Medium reaction
Free Ammonia.	0.0060	0.0048	0.0036	0.0048	0.0048	0.0060	0.0080	0.0080
Albuminoid Ammonia.	0.0016	0.0004	0.0004	0.0008	0.0004	0.0004	0.0004	0.0008
Temporary Hardness.	4.50	4.00	3.75	6.50	5.50	4.0	4.00	4.75
Permanent Hardness.	7.00	7.50	8.00	11.00	10.50	6.00	7.00	6.50
0"2 absorbed in 4 Hrs @ 80° F	0.004	0.008	0.004	0.00	0.004	0.00	0.008	0.016
pH Value.	8.90	8.70	9.50	8.20	8.20	8.10	9.10	8.50
Free Chlorine per 10 ⁶	0.03	Nil	0.08	Nil	-	-	-	-
Appearance.	Clear	Clear	Cloudy	Clear	Clear	Clear	Clear	Clear
Odour.	None	None	None	None	None	None	None	None
Taste & Colour.	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal

In conclusion, Mr. Chairman and Gentlemen, it may be said that the state of the Public Health for the year 1941 was, in spite of many difficulties, very satisfactory. This report relates to the last year in which my father, the late Dr. W.H. Turton, held his office of Medical Officer of Health, after a period of service of 54 years. The best testimonial which he could have had was to be able to show that in his final year of office, the state of the Public Health of Heanor proved itself to be so satisfactory and so vastly improved upon what it was when he first commenced in 1887.

I am, Mr. Chairman and Gentlemen,

Your obedient servant,

A handwritten signature in cursive script, appearing to read "Percy Smith", written over a horizontal line.

Medical Officer of Health.